

FIG.1

<u>HTML + D Attributes</u>	<u>Description</u>
<FORM ACTION = "url" FROM "file name" TO PRINTER TO "file name" FROM SCR TO SCR	To/From Web Server URL From Terminal Local File To Local Printer To Terminal Local File From Smart Card Reader To Smart Card Reader
METHOD = "GET" "POST" "PAYMENT"	Retrieve Data Store Data Directive to deliver INPUT data to a private Payment Network for authorization and settlement.
SQL <database name>	SQL statement database table

<u>Attribute</u>	<u>Value</u>	<u>Description</u>
<INPUT TYPE =	"text" "password" "checkbox" "radio" "submit" "reset"	
NAME =	<field name>	
VALUE =	<initial value>	
CHECKED =		
SIZE =		
MAXLENGTH =		
>		

<u>Attribute</u>	<u>HTML + D Value</u>	<u>Terminal Device</u>
TYPE =	"MSRT1" "MSRT2" "KEY" "PIN" "BCW" "MICR" "AMT" "INT" "LOCAL" "AUTOSUBMIT"	Mag Stripe Reader - Track 1 Mag Stripe Reader - Track 2 Terminal Command Keypad PIN Pad Bar Code Wand Check MICR Reader Dollar amount key input mask Integer key input mask Input from Local Variable Submit FORM to ACTION URL
NAME =	ip_address host_phone tid work_key datetime deposit_acct	Local Variable - Terminal's IP Address Local Variable - Local Internet Access Phone Number Local Variable - Terminal ID Local Variable - PIN encryption working key Local Variable - Date and time Local Variable - Merchant Deposit Account

FIG.2

SQL Statements

The following SQL commands represent a subset of the entire command set that varies by database vendor.

<u>HTML+D Attributes</u>	<u>Description</u>
<i>SELECT</i> *, field_name, <i>FROM</i> =<table name>, <i>WHERE</i> =<condition> name = "constant" name <i>LIKE</i> "constant" name <i>IN</i> "constant" <i>AND</i> <i>OR</i> <i>ORDER</i> = <i>ASC</i> <i>DESC</i> 2 <i>GROUP</i> =<name>	Request field_name (one or many) from a database table Database table name Conditional selection of data Request in ascending order ..descending ..by 2's
<i>INSERT</i> <i>TABLE</i> =<table name> <i>VALUES</i> = "constants"	Insert new data in database table
<i>UPDATE</i> <i>FROM</i> <table name> <i>SET</i> = field_name = "constant" [<i>WHERE</i> =<condition>]	Update field_name in database table Update if <i>WHERE</i> clause is satisfied
<i>DELETE</i> <i>FROM</i> <table name> [<i>WHERE</i> =<condition>]	Delete all columns that satisfy <i>WHERE</i> clause
<i>CREATE</i> <i>TABLE</i> <table_name> <i>PRIMARY KEY</i> <name>	Create database table

FIG.3

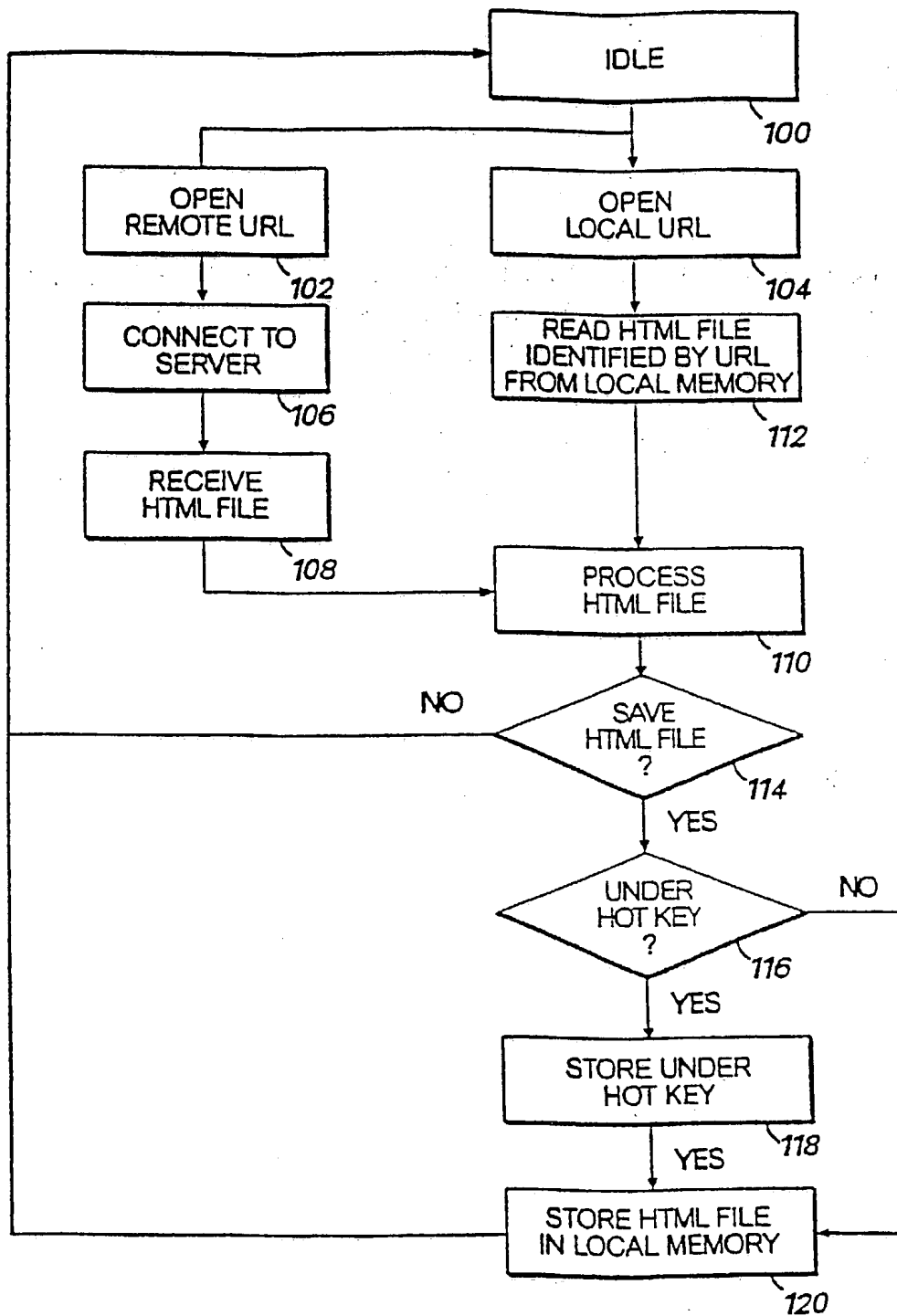


FIG.4

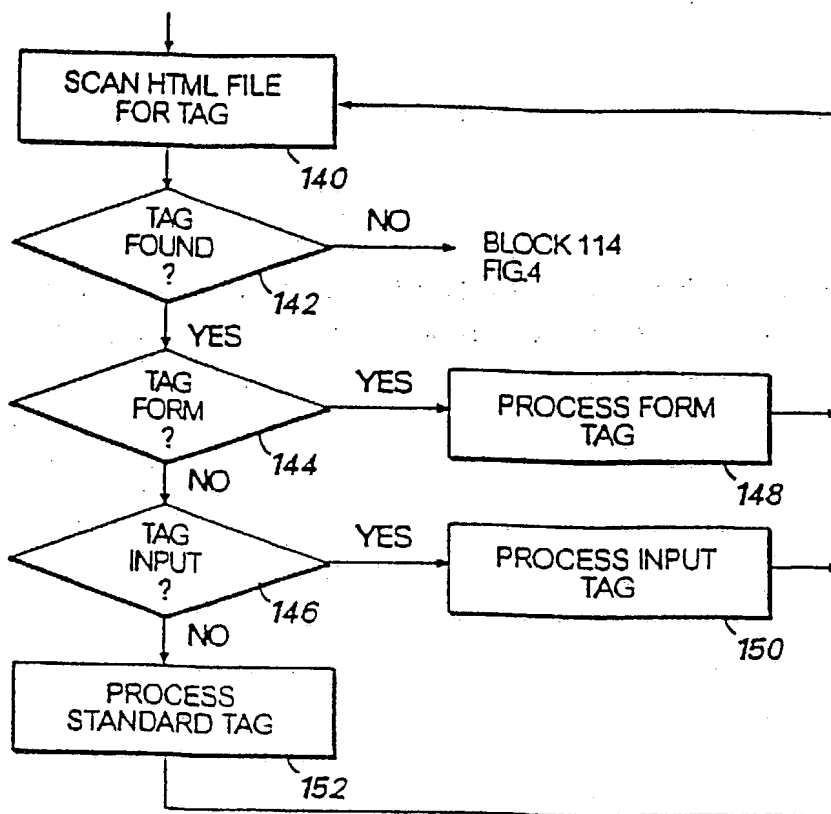


FIG. 5

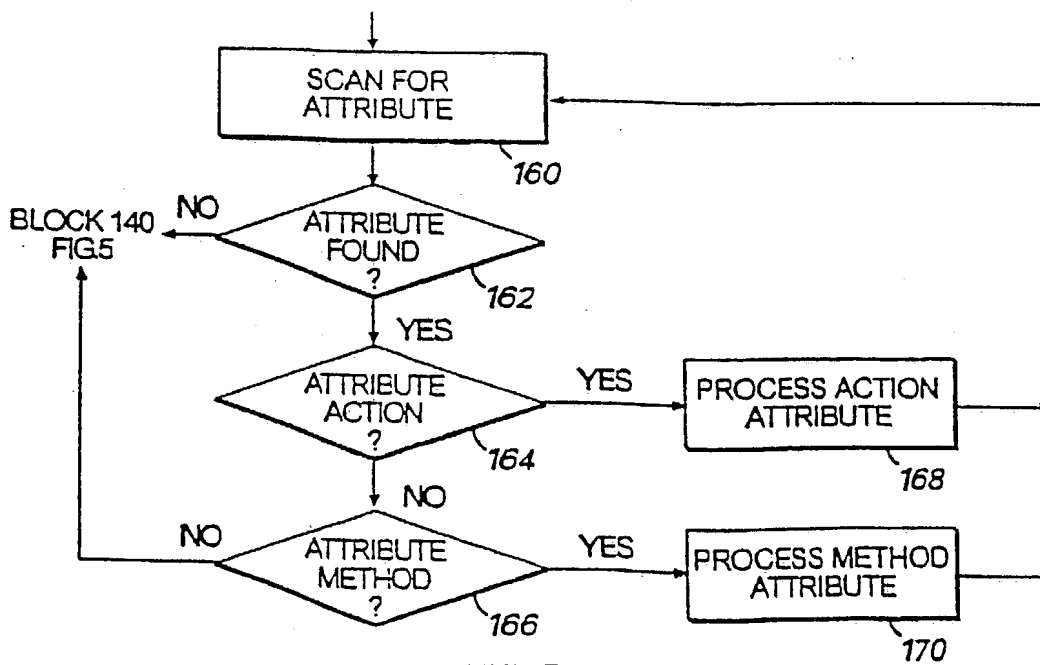


FIG. 6

BLOCK 160
FIG. 6

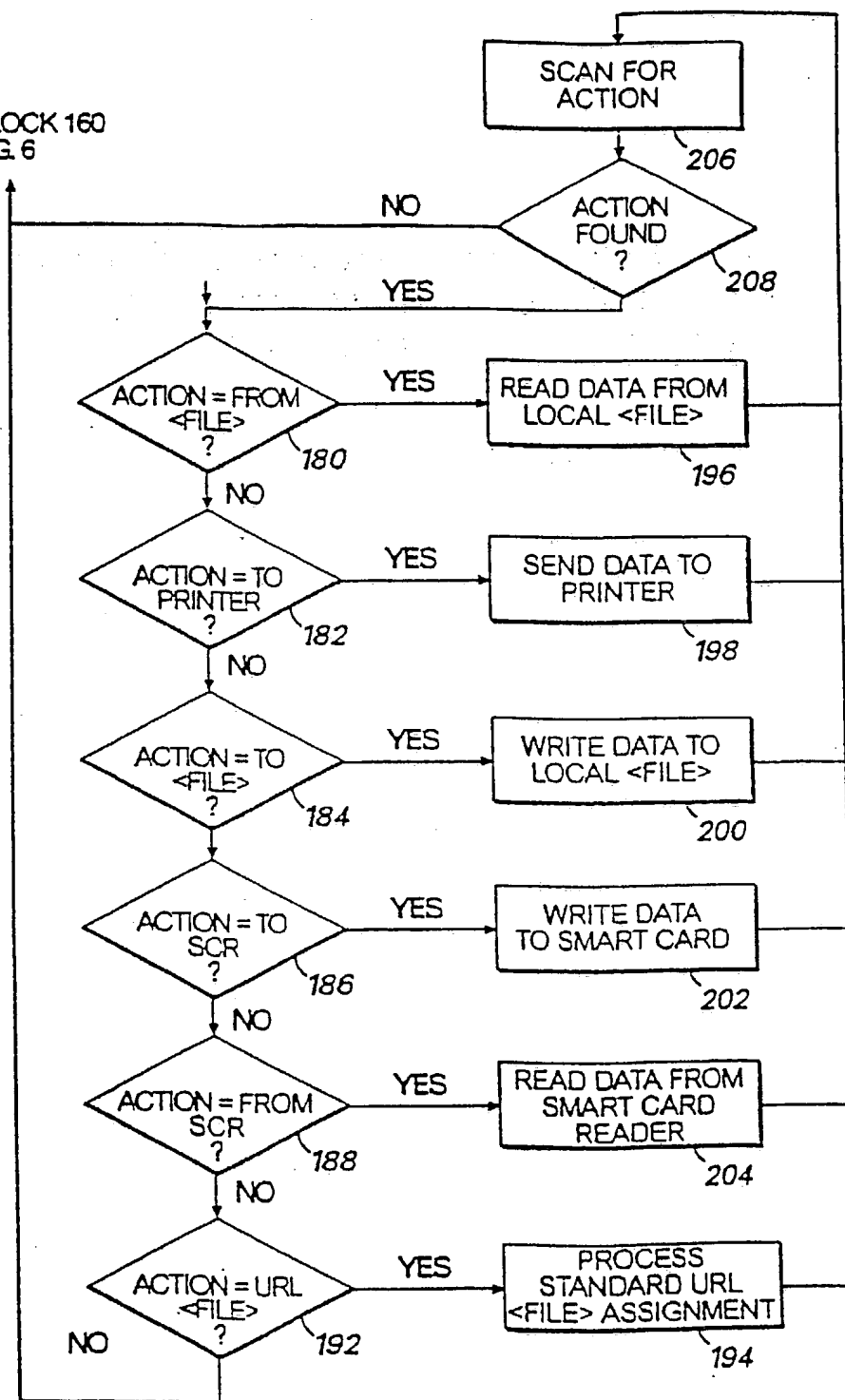


FIG. 7

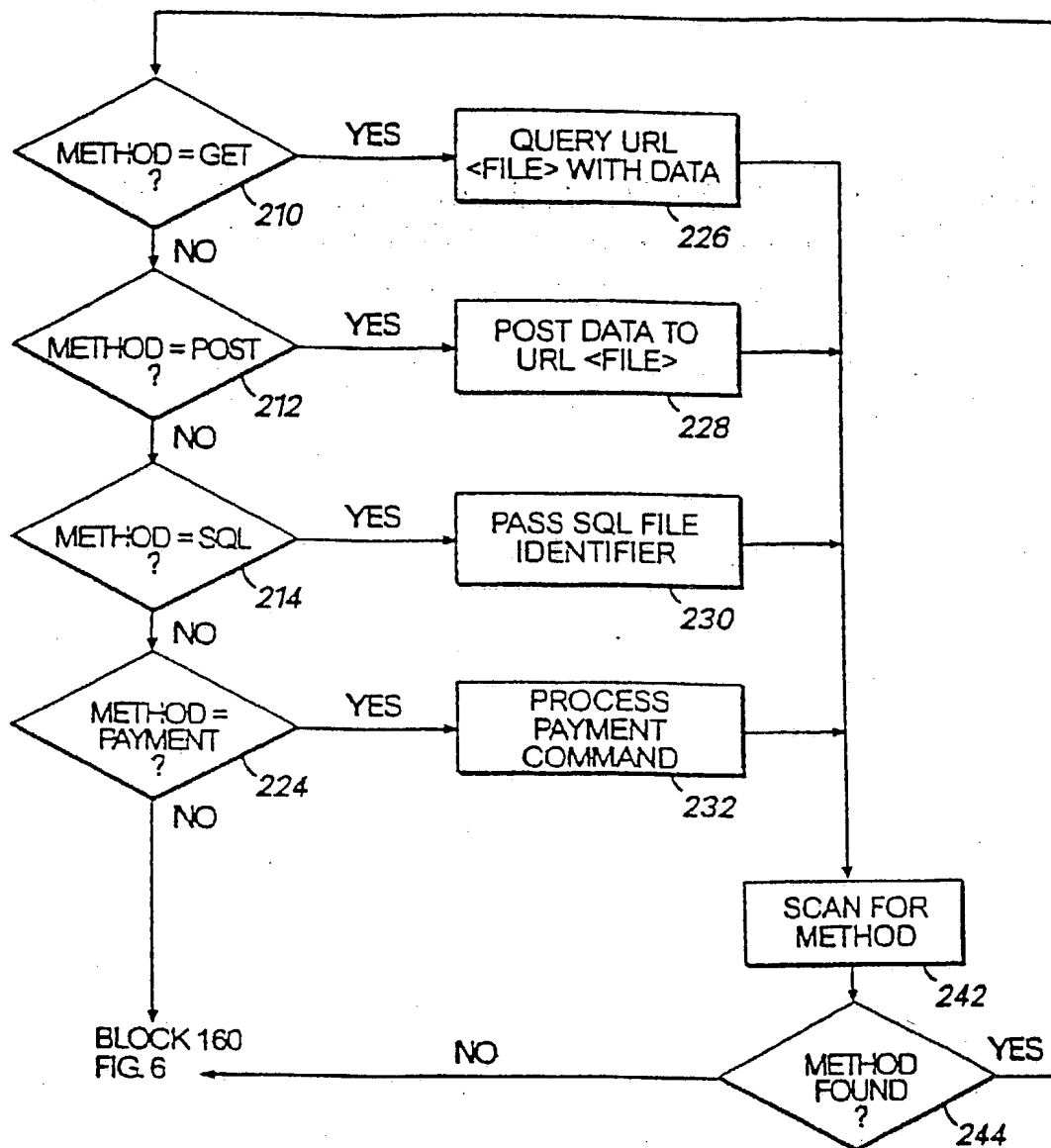


FIG.8

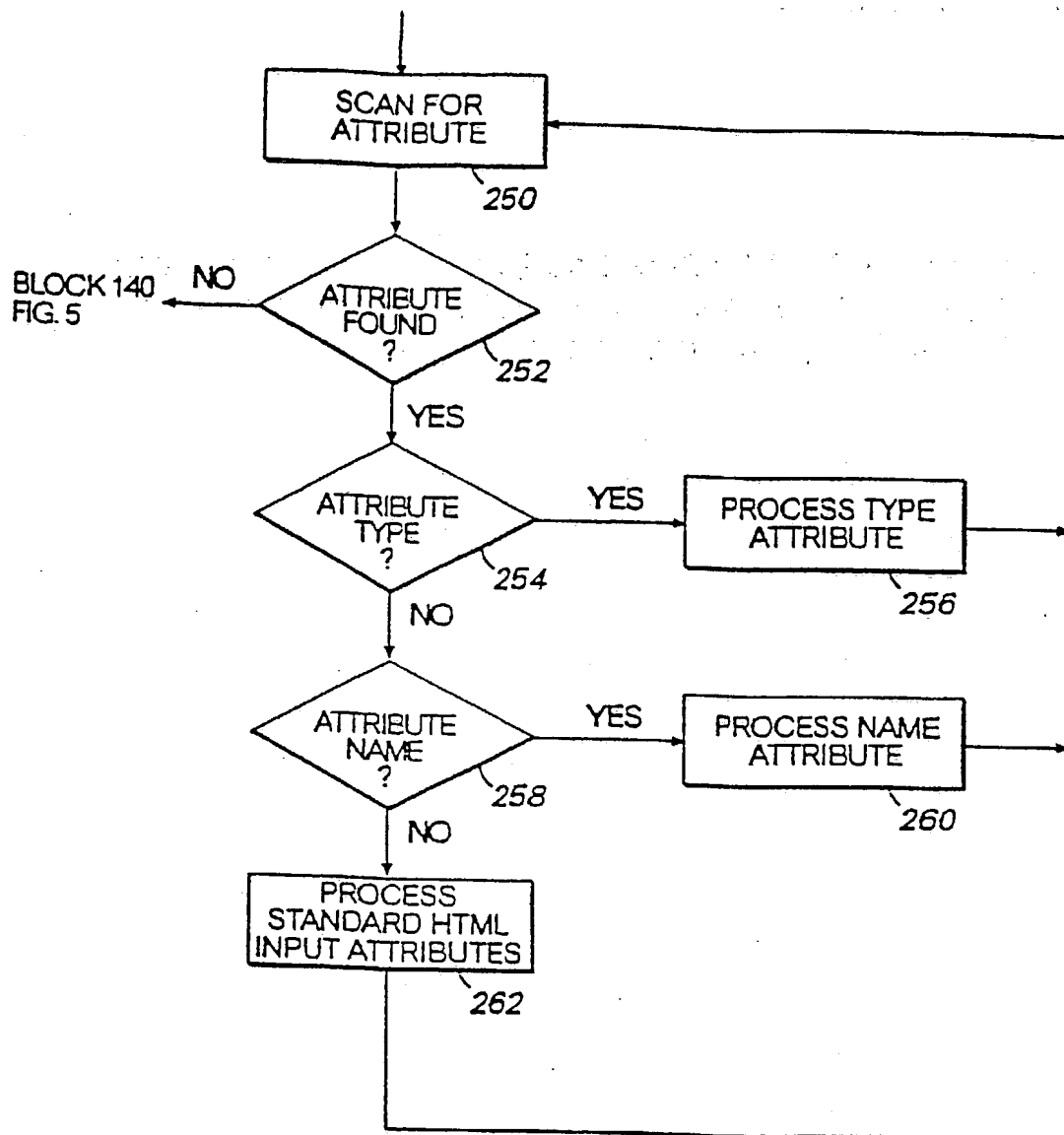


FIG. 9

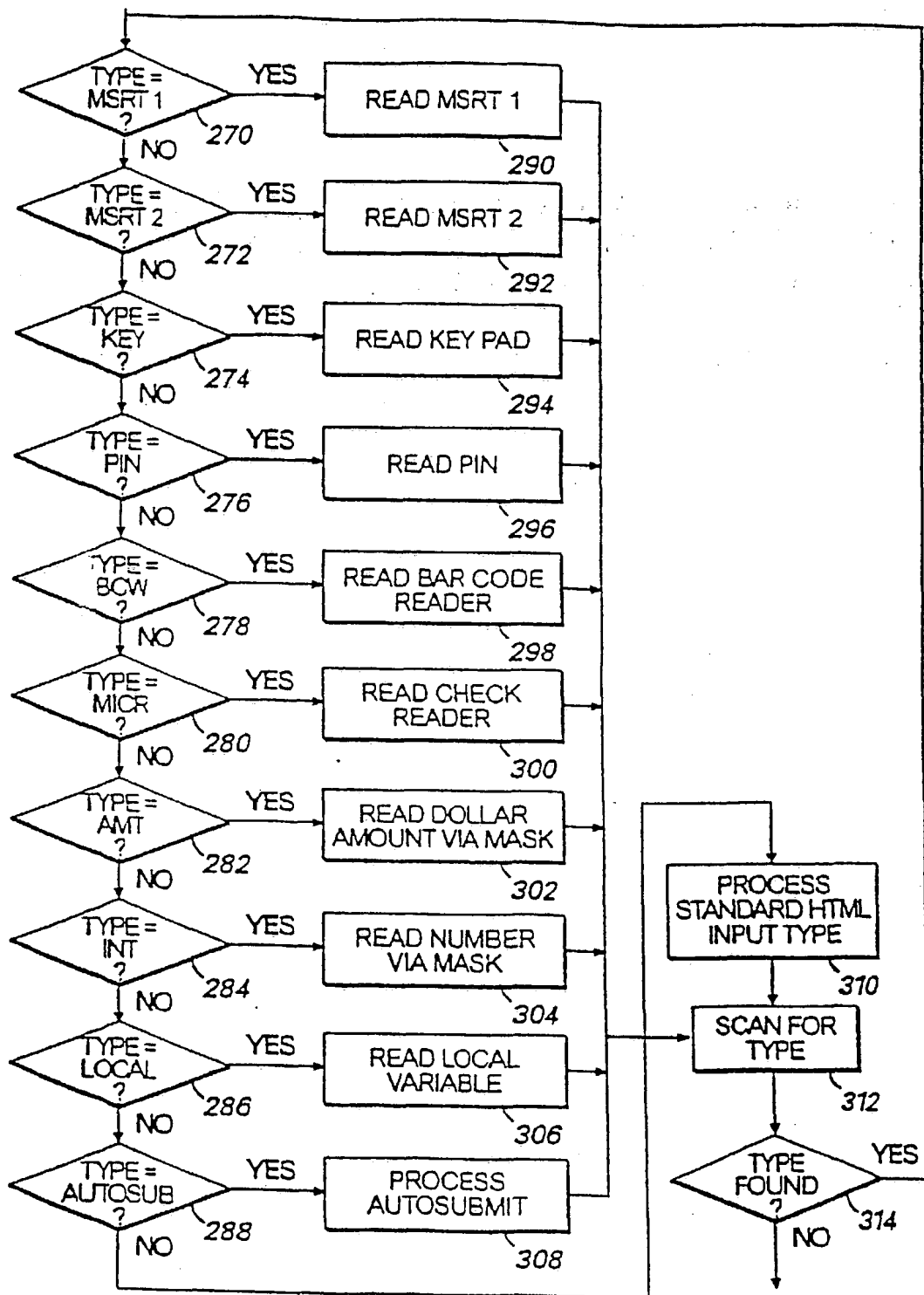


FIG.10

BLOCK 250
FIG. 9

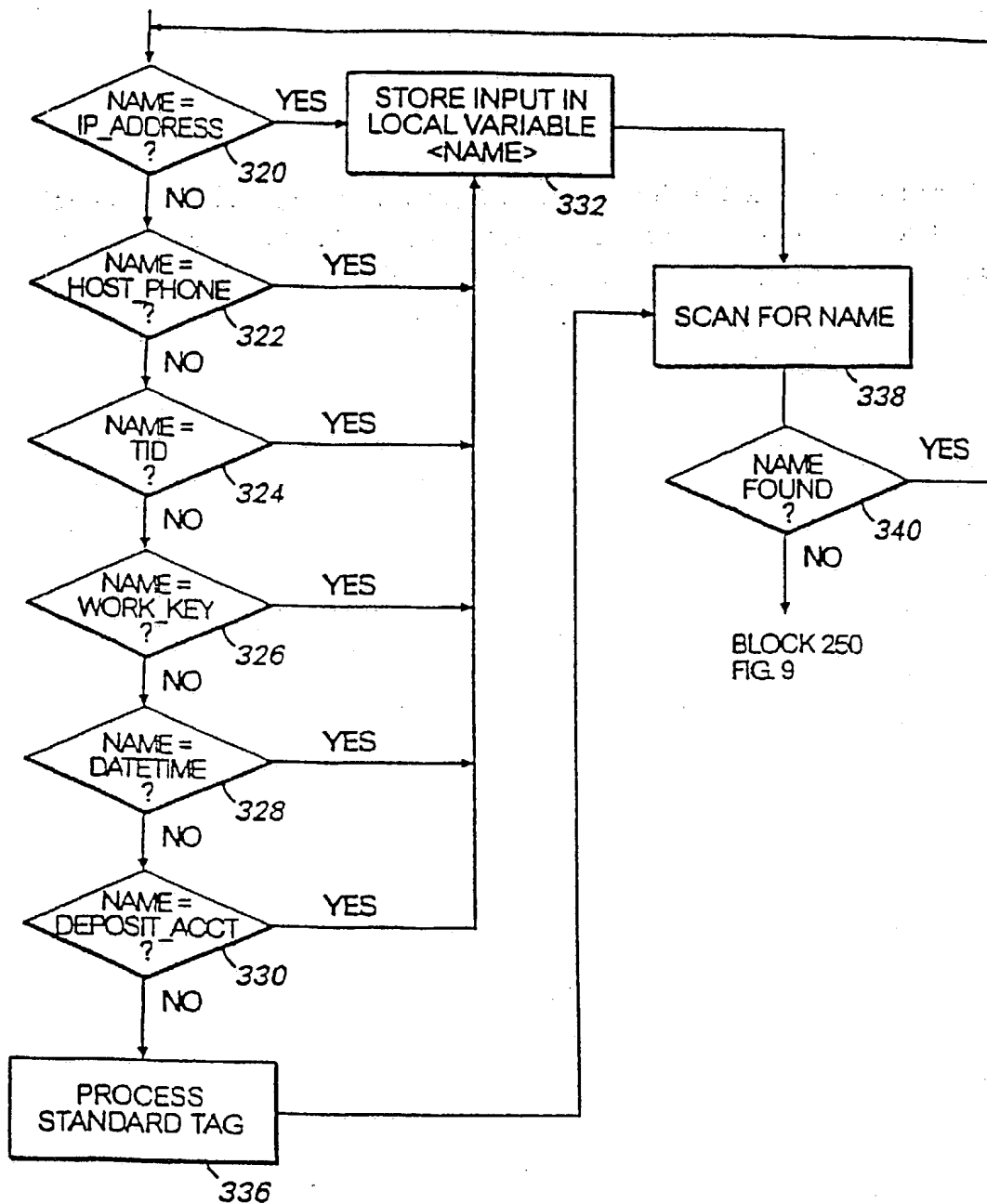


FIG.11

1. <FORM ACTION=URL METHOD= GET>
2. <FORM ACTION=URL METHOD= POST>
3. <FORM ACTION=URL METHOD= SQL <database_name>

FIG.12

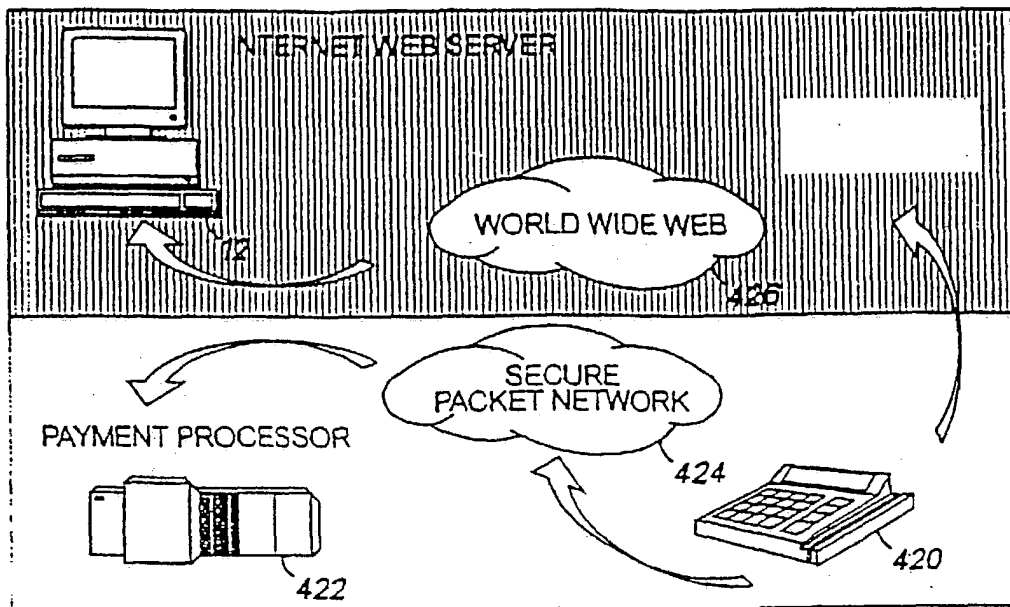


FIG.13A

```
<FORM ACTION=<filename> METHOD=PAYMENT>
<INPUT TYPE=AUTOSUBMIT>
</FORM>
```

FIG.13B

```
<FORM ACTION=dsinet METHOD=PAYMENT>
<INPUT TYPE=LOCAL NAME=DEPOSIT_ACCT VALUE=123456890234567890>
<INPUT TYPE=AUTOSUBMIT>
</FORM>
```

FIG.13C

1.a. Transaction Request HTML+0

```

<HTML>
<BODY>
<FORM ACTION=dbase_URL
  METHOD=SQL
  "BEGIN TRAN
    IF NOT EXISTS ( SELECT substring(account, 1, 20) FROM auth_table)
      BEGIN
        INSERT TABLE=log_table VALUES=(getdate(),tid, substring (account, 1,20) ,
        substring( account 22, 4), amount)
        SELECT * FROM log_table WHERE transdate = getdate()
      END
    ELSE SELECT * FROM error_table WHERE error_no=1
  COMMIT TRAN">
<INPUT TYPE="LOCAL" NAME=tid>
ENTER ACCOUNT NUMBER:
<INPUT TYPE="MSRTZ" SIZE=40 NAME=account>
ENTER AMOUNT
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>

```

1.b. Transaction Accepted Response

```

<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
JUNE 1 1995      10:30AM      PURCHASE</P>
TERMINAL ID:      9999999999</P>
ACCOUNT NUMBER    99999999999999999999</P>
EXP DATE:          99/99</P>
AMOUNT            $9999.99</P>
AUTH NUMBER       9999999999</P>
</p>
-----</p>
      CUSTOMER SIGNATURE </p>
</FORM>
APPROVED:9999999999</P>
</BODY>
</HTML>

```

1.c. Transaction Declined or Submit Error Response

```

<HTML>
<BODY>
DECLINED<MESSAGE>
</BODY>
</HTML>

```

FIG.14

2.a. Transaction Request HTML+D

550

```
<HTML>
<BODY>
<FORM ACTION=dbase URL
METHOD=SQL*BEGIN TRAN
  IF NOT EXISTS ( SELECT substring(account, 1, 20) FROM auth_table)
  BEGIN
    INSERT TABLE=log_table VALUES=(getdate(),tid, substring( account, 1,20),
    substring( account, 22, 4), amount)
  END
  ELSE BEGIN
    SELECT * FROM error_table WHERE error_no=1
    RETURN
  END
  INSERT TABLE=order_table VALUES=( getdate(), cust_name,address,city, state, zip,
  part_code, unit_price, tax, ship_method, ship_chrg, unit_price + tax +
  ship_chrg, substring( account, 1, 20), substring( account, 22, 4))
  SELECT * FROM order_table WHERE trandate = getdate()
  COMMIT TRAN">
CUSTOMER NAME:
<INPUT TYPE="TEXT" SIZE=30 NAME=cust_name></p>
ADDRESS:
<INPUT TYPE="TEXT" SIZE=40 NAME=address></p>
CITY:
<INPUT TYPE="TEXT" SIZE=20 NAME=city></p>
STATE:
<INPUT TYPE="TEXT" SIZE=2 NAME=state>
ZIP:
<INPUT TYPE="TEXT" SIZE=10 NAME=address></p>
SCAN PART CODE:
<INPUT TYPE="BCW" SIZE=9 NAME=part_code></p>
ENTER UNIT PRICE:
<INPUT TYPE="AMT" SIZE=8 NAME=unit_price></p>
TAX:
<INPUT TYPE="AMT" SIZE=5 NAME=tax></p>
SHIPPING METHOD:
<INPUT TYPE="TEXT" SIZE=10 NAME=ship_method></p>
SHIPPING AMOUNT:
<INPUT TYPE="AMT" SIZE=5 NAME=ship_chrg></p>
SLIDE CARD:
<INPUT TYPE="MSRTZ" SIZE=40 NAME=account></p>
<INPUT TYPE="SUBMIT">
</FORM>
</BODY>
</HTML>
```

FIG.15A

2.b. Transaction Accepted Response

555

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
ORDER # 9999999999 APPROVED</p>
JUNE 1 1995      10:30AM      PURCHASE</P>
TERMINAL ID:      999999999</P>
NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
ADDRESS:</p>
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
CITY:XXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
STATE:XX          ZIP:XXXXXXXXXXXXX</p>
ACCOUNT NUMBER:  99999999999999999999</p>
EXP DATE:                      99/99</p>
PART CODE:                      999999999</p>
UNIT PRICE:                      $9999.99</p>
SHIP METHOD:XXXXXXX CHARGE      $9999.99</p>
TOTAL AMOUNT:                      $9999.99</p>
AUTH NUMBER:                      999999999</p>
</p>

-----</p>
CUSTOMER SIGNATURE</p>

</FORM>
</BODY>
</HTML>
```

2.c. Transaction Declined or Submit Error Response

560

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

FIG.15B

3.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=dbase_URL
METHOD SQL
  "INSERT TABLE=order_table VALUES=( getdate(), cust_name,address,city, state, zip,
    part_code, unit_price, tax, ship_method, ship_chrg,unit_price + tax +
    ship_chrg, substring( account, 1, 20) ,substring( account, 22, 4))
  SELECT * FROM order_table WHERE transdate = getdate()">
<INPUT TYPE="LOCAL" NAME=tid>
CUSTOMER NAME:
<INPUT TYPE="TEXT" SIZE=30 NAME=cust_name></p>
ADDRESS:
<INPUT TYPE="TEXT" SIZE=40 NAME=address></p>
CITY:
<INPUT TYPE="TEXT" SIZE=20 NAME=city></p>
STATE:
<INPUT TYPE="TEXT" SIZE=2 NAME=state>
ZIP:
<INPUT TYPE="TEXT" SIZE=10 NAME=address></p>
ENTER PART CODE:
<INPUT TYPE="TEXT" SIZE=10 NAME=part_code></p>
ENTER UNIT PRICE:
<INPUT TYPE="AMT" SIZE=8 NAME=unit_price></p>
TAX:
<INPUT TYPE="AMT" SIZE=5 NAME=tax></p>
SHIPPING METHOD:
<INPUT TYPE="TEXT" SIZE=10 NAME=ship_method></p>
SHIPPING AMOUNT:
<INPUT TYPE="AMT" SIZE=5 NAME=ship_chrg></p>
<INPUT TYPE="SUBMIT" >
</FORM>
</BODY>
</HTML>
```

FIG.16A

3.b. Transaction Accepted Response

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
ORDER # 9999999999 APPROVED</p>
JUNE 1 1995      10:30AM      PURCHASE</P>
TERMINAL ID:      999999999</P>
NAME: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
ADDRESS:</p>
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
CITY: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</p>
STATE: XX      ZIP:XXXXXXXXXX</p>
PART CODE:      999999999</p>
UNIT PRICE:      $9999.99</p>
SHIP METHOD:XXXXXX CHARGE:      $9999.99</p>
TOTAL AMOUNT:      $9999.99</p>
</FORM>
<FORM ACTION=<file_name> METHOD=PAYMENT>
<INPUT TYPE=AUTOSUBMIT>
</FORM>
</BODY>
</HTML>
```

3.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

FIG.16B

4.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=SCR1 METHOD=POST>
<INPUT TYPE="LOCAL" NAME=id>
SLIDE CARD:
<INPUT TYPE="MSRT2" SIZE=40 NAME=track2>
ENTER AMOUNT:
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="LOCAL" NAME=work_key>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

4.b. Transaction Accepted HTML+D

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
DATE:99/99/99 TIME:9999A</P>
ACCOUNT NUMBER 99999999999999999999</p>
EXP DATE: 99/99</p>
AMOUNT: $9999.99</p>
AUTH NUMBER 9999999999</p>
</FORM>
APPROVED:9999999999</P>
</BODY>
</HTML>
```

4.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

FIG.17A

5.a. Transaction Request HTML+D

```
</HTML>
<BODY>
<FORM ACTION=SCR2 METHOD=POST>
<INPUT TYPE="LOCAL" NAME=tid>
ENTER PIN:
<INPUT TYPE="PASSWORD" SIZE=4 NAME=pin>
ENTER AMOUNT:
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="LOCAL" NAME=work_key>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

5.b. Transaction Accepted HTML+D

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
DATE:99/99/99          TIME:9999A</P>
ACCOUNT NUMBER    99999999999999999999</P>
EXP DATE:                      99/99</P>
AMOUNT                      $9999.99</P>
AUTH NUMBER                      9999999999</P>
</FORM>
APPROVED:9999999999</P>
</BODY>
</HTML>
```

5.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

FIG. 17B

6.a Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=host URL METHOD=POST>
<INPUT TYPE="LOCAL" NAME=id>
SLIDE CARD
<INPUT TYPE="MSRT2" SIZE=40 NAME=track2>
<INPUT TYPE="PIN" SIZE=4 NAME=pin>
ENTER AMOUNT:
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

6.b. Transaction Accepted HTML+D

```
<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
DATE:99/99/99                                TIME:9999A</P>
TERMINAL ID:                                9999999999</P>
ACCOUNT NUMBER    999999999999999999999999</P>
EXP DATE:                                                99/99</P>
AMOUNT                                                    $9999.99</P>
AUTH NUMBER                                              9999999999</P>
</FORM>
APPROVED:9999999999</P>
</BODY>
</HTML>
```

6.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
<INPUT TYPE="LOCAL" NAME=work_key VALUE="9999999999999999">
</BODY>
</HTML>
```

FIG. 18

7.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=dbase_URL
      METHOD=SQL
      "IF EXISTS ( SELECT account FROM check_table)
        SELECT * FROM check_table WHERE account = DDAaccount
        ELSE SELECT * FROM error_table WHERE error_no=1">
<INPUT TYPE="LOCAL" NAME=id>
SCAN CHECK:
<INPUT TYPE="MICR" SIZE=20 NAME=account>
ENTER AMOUNT
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

7.b Transaction Accepted Response

[illegible]

7.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <error code>
</BODY>
</HTML>
```

FIG. 19

8.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=base_URL
METHOD=SQL
* BEGIN TRAN
IF NOT EXISTS ( SELECT substring(account,51,20) FROM auth_table)
BEGIN
SELECT cur_bal FROM cust_tbl WHERE substring(account,51,20)=account
SELECT amount=amount-(points/.01)
SELECT cur_bal=cur_bal+(amount*.01)
UPDATE TABLE=cust_tbl VALUES=( getdate(), account, cur_bal-points )
SELECT * FROM log_table WHERE tran_date=getdate()
INSERT TABLE=log_table VALUES=( getdate(), tid, substring(account,51,20),
substring( account, 72, 4), amount)
END
ELSE SELECT * FROM error_table WHERE error_no=1"
COMMIT TRAN">
<INPUT TYPE="LOCAL" NAME=tid>
ENTER ACCOUNT NUMBER:
<INPUT TYPE="MSRT1" SIZE=90 NAME=account>
ENTER AMOUNT
<INPUT TYPE="AMT" SIZE=8 NAME=amount>
REDEEM POINTS?
<INPUT TYPE="INT" SIZE=6 NAME=points>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

8.b. Transaction Accepted Response

[illegible]

8.c. Transaction Declined or Submit Error Response

```
<HTML>
<BODY>
DECLINED <MESSAGE>
</BODY>
</HTML>
```

FIG. 20

9.a. Transaction Request HTML+D

```

<HTML>
<BODY>
<FORM ACTION=dbase_URL
      METHOD=SQL
      "SELECT fields FROM table WHERE condition">
<INPUT TYPE="LOCAL" NAME=id>
ENTER SEARCH TABLE NAME:
<INPUT TYPE="TEXT" SIZE=10 NAME=table>
ENTER SEARCH FIELD NAMES:
<INPUT TYPE="TEXT" SIZE=100 NAME=fields>
ENTER SEARCH CONDITION:
<INPUT TYPE="TEXT" SIZE=50 NAME=condition>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>

```

9.b. Transaction Response

```

<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
FIELD1  FIELD2  FIELD3  -----  FIELDN  </p>
-----  -----  -----  -----  -----  </p>
XXXXX   XXXXX   XXXXX   XXXXX   XXXXX   </p>
XXXXX   XXXXX   XXXXX   XXXXX   XXXXX   </p>
.
.
XXXXX   XXXXX   XXXXX   XXXXX   XXXXX   </p>
</FORM>
</BODY>
</HTML>

```

FIG.21

10.a Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=dbase_URL
  METHOD=SQL
  * INSERT TABLE=log_table VALUES=( getdate(), tid, gross_sales, opn_chks, voids,
  emp_disc, mgr_disc, vip_card, man_over, coupons, sales_tax, c_dep1, c_dep2,
  c_dep3, c_dep4, chg_fund, cc_dep, batch_no, chrg_sales, paid_outs, co_sales,
  cc_sales, te_sales, gross_sales - opn_chks - voids - emp_disc - mgr_disc - vip_card -
  man_over - coupons - sales_tax, gross_sales - opn_chks - voids -
  emp_disc - mgr_disc - vip_card - man_over - coupons - c_dep1 - c_dep2 -
  c_dep3 - c_dep4 - chg_fund - cc_dep - batch_no - chrg_sales - paid_outs)
  SELECT * FROM log_table WHERE trandate = getdate() ">
<INPUT TYPE="LOCAL" NAME=tid>
ENTER GROSS SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=gross_sales>
ENTER OPEN CHECKS:
<INPUT TYPE="INT" SIZE=7 NAME=opn_chks>
ENTER VOIDS:
<INPUT TYPE="INT" SIZE=7 NAME=voids>
ENTER EMP DISCOUNTS:
<INPUT TYPE="INT" SIZE=7 NAME=emp_disc>
ENTER MGR DISCOUNT:
<INPUT TYPE="INT" SIZE=7 NAME=mgr_disc>
ENTER VIP CARD:
<INPUT TYPE="INT" SIZE=7 NAME=vip_card>
ENTER MANUAL OVERRINGS:
<INPUT TYPE="INT" SIZE=7 NAME=man_over>
ENTER COUPONS:
<INPUT TYPE="INT" SIZE=7 NAME=coupons>
ENTER SALES TAX:
<INPUT TYPE="AMT" SIZE=8 NAME=sales_tax>
ENTER CASH DEPOSIT 1:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep1>
ENTER CASH DEPOSIT 2:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep2>
ENTER CASH DEPOSIT 3:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep3>
ENTER CASH DEPOSIT 4:
<INPUT TYPE="AMT" SIZE=8 NAME=c_dep4>
ENTER CHANGE FUND:
<INPUT TYPE="AMT" SIZE=8 NAME=chg_fund>
```

FIG.22A

```

ENTER CC DEPOSIT:
<INPUT TYPE="AMT" SIZE=8 NAME=cc_dep>
ENTER BATCH #:
<INPUT TYPE="INT" SIZE=3 NAME=batch_no>
ENTER CHARGE SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=chrg_sales>
ENTER PAID OUTS:
<INPUT TYPE="INT" SIZE=8 NAME=paid_outs>
ENTER CARRY OUT SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=co_sales>
ENTER CREDIT CARD SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=cc_sales>
ENTER TAX EXEMPT SALES:
<INPUT TYPE="AMT" SIZE=8 NAME=te_sales>
<INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>

```

10.b. Transaction Response

```

<HTML>
<BODY>
<FORM ACTION=TO PRINTER METHOD=POST>
JUNE 1 1995      10:30AM      DAILY REPORT</P>
TERMINAL ID:      99999999</P>
GROSS SALES      999999.99</P>
VOIDS            99      999999.99</P>
EMP DISCOUNTS   99      999999.99</P>
MANAGER DISCOUNTS 99      999999.99</P>
VIP CARD         99      999999.99</P>
COUPONS          99      999999.99</P>
MANUAL OVERRINGS 99      999999.99</P>
SALES TAX        999999.99</P>
CASH DEPOSIT 1   999999.99</P>
CASH DEPOSIT 2   999999.99</P>
CASH DEPOSIT 3   999999.99</P>
CASH DEPOSIT 4   999999.99</P>
CASH DEPOSIT 5   999999.99</P>
CHANGE FUND      999999.99</P>
CC DEPOSIT       999      999999.99</P>
CHARGE SALES     999999.99</P>
PAID OUTS        99      999999.99</P>
CARRY OUT SALES  999999.99</P>
CREDIT CARD SALES 999999.99</P>
TAX EXEMPT SALES 999999.99</P>
-----</P>
NET SALES      99999999</P>
OVER/SHORT     99999999</P>
</FORM>
</BODY>
</HTML>

```

FIG.22B

11.a. Transaction Request HTML+D

```
<HTML>
<BODY>
<FORM ACTION=MAIL TO: mail_to>
  ENTER MAIL ADDRESS:
  <INPUT TYPE="TEXT" SIZE=20 NAME=mail_to>
  ENTER MESSAGE:
  <INPUT TYPE="TEXT" SIZE=100>
  <INPUT TYPE="AUTOSUBMIT">
</FORM>
</BODY>
</HTML>
```

FIG.23

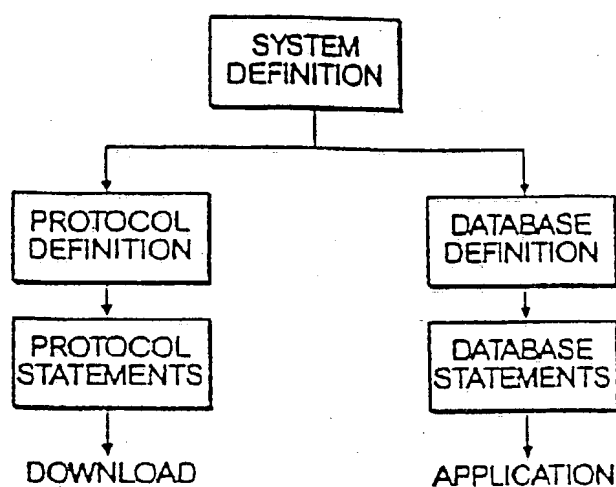


FIG.24A

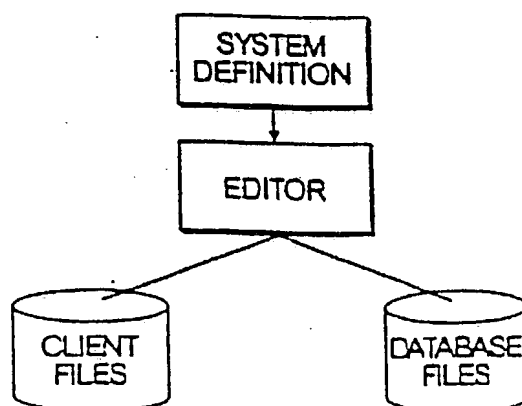


FIG.24B